

Claims:

1. A method for inhibiting a pathological condition associated with intercellular adhesion mediated by L-selectin comprising administering to a patient in need a therapeutically effective amount of
 - a) an isolated, purified CD34 polypeptide; or
 - b) an antibody capable of binding a native CD34.
2. The method of claim 1 wherein the pathological condition is associated with the adhesion of leukocytes to endothelial cells.
3. The method of claim 2 wherein the leukocytes are lymphocytes and the endothelial cells are on peripheral or mesenteric lymph nodes.
4. The method of claim 3 wherein the pathological condition is an autoimmune disease.
5. The method of claim 4 wherein the pathological condition is rheumatoid arthritis, multiple sclerosis, psoriasis, or chronic dermatitis.
6. The method of claim 2 wherein the leukocytes are neutrophils or monocytes, and the endothelial cells are those of venular endothelium.
7. The method of claim 6 wherein the pathological condition treated is acute or chronic inflammation.
8. The method of claim 7 wherein the pathological condition is adult respiratory distress syndrome (ARDS), multi-organ failure, reperfusion injury, acute glomerulonephritis, reactive arthritis, dermatosis, acute purulent meningitis, thermal injury, ulcerative colitis, Crohn's disease, hemodialysis, leukapheresis, hemorrhagic shock, or cytokine-induced toxicity. *or rheumatoid arthritis*
9. The method of claim 2 further comprising the administration of a therapeutically effective amount of a compound selected from the group consisting of:
 - a) a selectin;
 - b) a selectin ligand other than a CD34 polypeptide;
 - c) an antibody capable of binding a selectin or a selectin ligand other than a CD34 polypeptide;
 - d) an integrin;
 - e) an integrin ligand;
 - f) an antibody capable of binding an integrin or an integrin ligand;

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- g) a non-protein antagonist of L-selectin-CD34 interaction.
10. The method of claim 9 wherein said compound is a P-selectin, a P-selectin ligand or an antibody capable of binding P-selectin.
- 5 11. The method of claim 2 further comprising the administration of a steroidal or non-steroidal antiinflammatory agent.
12. The method of claim 2 wherein said patient is a mammal.
- 10 13. The method of claim 12 wherein said patient is human.
14. The method of claim 1 wherein said CD34 polypeptide has a carbohydrate structure recognized by the monoclonal antibody MECA 79.
- 15 15. A method for targeting a pharmaceutically active compound to endothelial cells comprising chemically or physically associating said compound with an antibody capable of binding a native CD34.
- 20 16. The method of claim 15 wherein said pharmaceutically active compound is an antiinflammatory agent.
17. The method of claim 15 wherein said pharmaceutically active compound is an antioxidant.
- 25 18. The method of claim 15 wherein said pharmaceutically active compound is directly fused to a constant domain sequence of said antibody.
- 30 19. A method of presenting a carbohydrate antagonist of L-selectin-CD34 interaction to endothelial cells expressing CD34 comprising attaching said antagonist to the polypeptide backbone or a CD34 polypeptide.
- 35 20. A bispecific molecule comprising a CD34 sequence or an antibody sequence capable of binding a native CD34 and a further pharmaceutically active moiety.
21. The bispecific molecule of claim 20 comprising an antibody
- 40 sequence capable of binding a native CD34 and a pharmaceutically active moiety of an antiinflammatory agent or an antioxidant.
22. The bispecific molecule of claim 20 comprising a first antibody sequence capable of binding a native CD34 and a second antibody sequence

capable of binding a different molecule associated with leukocyte adhesion.

23. The bispecific molecule of claim 22 wherein said second antibody sequence is capable of binding a native selectin ligand other than CD34.

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24. The bispecific molecule of claim 22 wherein said second antibody sequence is capable of binding a native integrin ligand.

25. The bispecific molecule of claim 24 wherein said integrin ligand 10 is a member of the ICAM family.

Sub 26. A pharmaceutical composition comprising an isolated, purified CD34 polypeptide or an anti-CD34 antibody.

15 27. The pharmaceutical composition of claim 26 further comprising an additional pharmaceutically active compound.

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